State of Alaska
FY2007 Governor's Operating Budget

Department of Natural Resources
Water Development
Component Budget Summary

Component: Water Development

Contribution to Department's Mission

To facilitate the development and stewardship of Alaska's water resources.

The work within the Water Development Budget Component is intended to accomplish three outcomes:

I. Protect and Provide for Water Property Rights
II. Provide Technical Hydrologic Support
III. Ensure Safe Operation and Construction of Jurisdictional Dams

Core Services

The core services in this component are:
1. Water Management, which provides water rights and temporary water use authorizations to industry and individual Alaskans;
2. Hydrologic Survey, which provides scientific hydrologic expertise and maintains hydrologic data for use by state government and the public;
3. Dam Safety, which protects public safety and property through ensuring safe dams.

WATER MANAGEMENT

WATER RIGHT. A water right is a property right necessary to establish legal standing against future water users and those current water users who never applied for a water right. DMLW staff adjudicates water right applications to ensure that granting the water right will not impair the rights of other water right holders and that the water right is in the public interest (i.e., that it will not have a significant adverse effect on the environment). Adjudication includes public and agency notice of the application, resolving conflicting permit terms and conditions, and compliance with land use and coastal zone plans.

The unit also asserts the state's interest and authority in water allocation issues raised by federal actions and for reservations of instream flow. Finally, staff maintains files on more than over 21,000 adjudicated water property rights, water use files and pending applications. In FY 2006, with full staffing the WMU will process 100% of new water right applications received, and 100 backlog applications (6.75% of the existing backlog).
(See Key Component Challenges).

TEMPORARY WATER USE AUTHORIZATION. A temporary water use authorization is required when a significant amount of water is needed for a short-term project such as highway construction or reconstruction, or oil and gas exploration. No right is granted under a temporary water use authorization. Unless the project is within the coastal zone, or is controversial or unusually complex, a temporary water use authorization is completed within approximately 20 days of receipt. Authorizations within the coastal zone typically require a minimum 60 days.

HYDROLOGIC SURVEY

Alaska Hydrologic Survey (AHS) staff provide hydrologic data to the public, industry, and agencies that can be used to determine appropriate use of the State water resource.

Provide up-to-date complete data on all known water wells within the State.
Ground water data on all known water wells within the state are contained within the web based **We**ll **L**og **T**racking **S**ystem (WELTS) database. Currently, over 30,000 water well logs are available in the WELTS database. WELTS data are used by the public to assess and protect individual water supplies; by industry to secure adequate water supplies for economic development; and extensively by agencies in the allocation and adjudication of water rights. AHS works with and cooperates extensively with the water management staff to assist and ensure that the water

resource is allocated using the best available data.

Provide data analysis/interpretation of hydrologic issues.
AHS hydrologists provide analysis of data and interpretation of hydrologic issues. Homeowners frequently seek assistance in the interpretation and analysis of hydrologic issues regarding their personal water sources, flooding, and erosion mitigation. Agencies mandated by Federal and State statute to allocate and protect the water resources of the State are dependent upon access to the data and require analysis of the data by professional hydrologists. Staff hydrologists collect data from one or more of the multiple databases maintained by AHS, through literature/data searches of all known sources, and through on-site field data collection and interpretation.

Provide hydrologic oversight and analysis to industry to enhance economic development:
Necessary to any industrial or economic development is the need for hydrologic data and analysis regarding the water resources. Water is a critical component for mining, oil and gas, fisheries, construction, and other industries. Industry relies on DNR's hydrologic survey staff to interpret and analyze hydrologic data during the design phase of development projects in order to assure adequate water; and during development and operation to assure the compliance with all stipulations placed on use of the water and adherence to water quality requirements. AHS hydrologists provide this service by: active participation on the states Large Mine Project Team which facilitate the permitting and development of large scale mining and other development projects; oversight of technical hydrologic concerns pertaining to expansion of the North Slope Oil industry and seasonal construction of critical ice-roads; monitoring of existing mining and oil industry facilities to ensure compliance with water quality regulations; and monitoring and assessment of gravel borrow sites needed to facilitate small to large scale development.

DAM SAFETY

The Dam Safety and Construction Unit is responsible for supervising the safety of dams in Alaska. The unit consists of one registered professional engineer who oversees the following actions:

- *Periodic Safety Inspections of Jurisdictional Dams*. State laws require that dam safety inspections be conducted every three years for Class I and II dams, and every five years for Class III dams. These inspections are typically conducted by a private professional engineer and reviewed and approved by the State Dam Safety Engineer. Current inspections monitor the health of existing dams and reduce the possibility of failures.
- *Certificates of Approval to Construct, Repair, Modify, Remove, Abandon or Operate a Dam*. Before work begins on a dam, it must be approved by the state to assure that the dam will be built and operated safely. The review time for the application submittals is approximately 6 months.
- *Safe and Effective Emergency Response to Dam Failures*. Dam Safety regulations require dam owners to maintain Emergency Action Plans for all Class I and II dams. These plans must be updated and exercised regularly to prepare for a dam failure.
- *Other Dam Safety Related Work.* The Unit also provides engineering assistance for technical review of related work in DNR (such as unregulated dams at mines and other private dam owners, and engineering problems associated with active and abandoned mining operations).

End Results	Strategies to Achieve Results
A: Business and individuals obtain water authorizations for which they apply. Target #1: Process 100% of new water right applications received. Measure #1: Percentage of water right applications processed compared with the number received. Target #2: Process 100% of new temporary water use authorizations received. Measure #2: Percentage of new temporary water use authorizations applications processed compared with the number received.	**A1: Process water rights and temporary water use authorizations within expected timelines** Target #1: Process new water right applications within 6 months. Measure #1: Median number of months to process new water rights. Target #2: Process temporary water use authorizations within 3 weeks. Measure #2: Median number of weeks to process new water use authorizations. Target #3: Eliminate backlog of water right applications by processing 100 water rights of the backlog per year.

	Measure #3: # of water rights processed from the backlog per year.
End Results	**Strategies to Achieve Results**
B: Provide hydrologic data to the public, industry, and agencies that can be used to determine appropriate use of state water resources. Target #1: Provide information, analysis, and response to 1,000 hydrologic customer requests. Measure #1: Number of customers served.	**B1: Post hydrologic data on public well site and provide analysis of hydrologic issues.** Target #1: Post 100% of new well data received on the WELTS data base web site. Measure #1: Percentage of well data posted on WELTS site. Target #2: Respond to 100% of requests for analysis of hydrologic issues. Measure #2: Percentage of requests responded to. Target #3: Provide hydrologic support to 100% of major industrial projects where requested. Measure #3: Percentage of industrial project support requests supported.
End Results	**Strategies to Achieve Results**
C: All dams under DNR jurisdiction are operated safely without failure. Target #1: No jurisdictional dams fail. Measure #1: Number of jurisdictional dam failures.	**C1: Obtain compliance with regulations that were established to assure the safety of dams under state jurisdiction.** Target #1: A current periodic safety inspection on 60% of jurisdictional dams. Measure #1: Percentage of jurisdictional dams with current inspections.

Major Activities to Advance Strategies

- Process 300 new water right applications with a median cycle time of 60 days.
- Issue 150 temporary water use authorizations with a median cycle time of 3 weeks.
- Issue 6 new instream flow reservations.
- Process 100 backlog water right applications.
- Complete entry of a total estimated 1000 well logs received into the WELTS database.
- Provide hydrologic data analysis and interpretation for an estimated 200 requests for assistance.
- Provide hydrologic support to 8 major industrial projects such as Pt. Bullen, and North Slope ice road development.
- Complete participation in the ACWA process.
- Hiring of two now vacant Hydrologist positions, and the securing of matching funds needed to support these positions.
- Provide notice to owners of dams with due or over due periodic safety inspections.
- Review & approve periodic safety inspection reports submit to the State and issue Cert. of Approval to Operate a Dam to owners in compliance w/regs.
- Review applications and issue Certificates of Approval to construct, repair, modify, remove or abandon a dam.

FY2007 Resources Allocated to Achieve Results

FY2007 Component Budget: $1,610,000

Personnel:	
Full time	16
Part time	0
Total	16

Performance Measure Detail

A: Result - Business and individuals obtain water authorizations for which they apply.

Target #1: Process 100% of new water right applications received.
Measure #1: Percentage of water right applications processed compared with the number received.

Water Rights

Year	WR processed	YTD Total
2003	365	204%
2004	324	120%
2005	164	66%

Analysis of results and challenges: In FY 2005 the Water Management Unit (WMU) received 313 new water right applications and processed only 164. This resulted in an increase of 104 applications to the existing backlog of applications pending adjudication. This target was not met because of a significant portion ($300,000) of FY 2005 funding was changed to Receipt Supported Services, but due to statutory restrictions, DNR could not increase fees to cover this change. As a result, water rights staffing was reduced in FY 2005. In FY 2006, with full staffing, the WMU will process 100% of new water right applications, and 100 backlog applications (6.75% of the existing Backlog).

Target #2: Process 100% of new temporary water use authorizations received.
Measure #2: Percentage of new temporary water use authorizations applications processed compared with the number received.

Percentage of Temp. Water Use Auth. Processed

Year	TWUAs processed	YTD Total
2003	292	100%
2004	95	100%
2005	138	100%

Analysis of results and challenges: The WMU received and processed 138 Temporary Water Use Applications in FY 2005. The WMU is committed to processing all new Temporary water use applications within 3 weeks of receipt.

A1: Strategy - Process water rights and temporary water use authorizations within expected timelines

Target #1: Process new water right applications within 6 months.
Measure #1: Median number of months to process new water rights.

Median Cycle Time

Year	Months
2004	6
2005	6

Analysis of results and challenges: In FY 2005 any new application received and adjudicated were completed within 6 months. There were many applications that were not adjudicated that were not included in the cycle time. New applications that were not adjudicated (104 applications in FY 2005) were backlogged and will not be completed within the 6-month period. At current staffing levels backlog application adjudication may take up to 7 years.

Target #2: Process temporary water use authorizations within 3 weeks.
Measure #2: Median number of weeks to process new water use authorizations.

Median Cycle Times

Year	Weeks
2004	3
2005	3

Analysis of results and challenges: In FY 2005 the WMU received 138 temporary water use applications and processed them all within 3 weeks. This allowed for the use of water by industry for project development and construction associated with oil and gas exploration, road construction and other temporary water uses.

Target #3: Eliminate backlog of water right applications by processing 100 water rights of the backlog per year.
Measure #3: # of water rights processed from the backlog per year.

Backlogged Water Rights

Year	# processed	YTD Total
2004	0	571
2005	0	675
2006	0	675

Analysis of results and challenges: Currently the WMU has over 675 backlog water right applications pending adjudications. This unit is committed to adjudicating all new applications submitted in FY 2006 and 100 of the backlog applications. Some of the backlog applications are adjudicated because they are associated with new applications (in the same area or taking water from the same source). The other backlog applications will be adjudicated in the order they are received. It is estimated to take up to 7 years to eliminate the current backlog of water right applications.

B: Result - Provide hydrologic data to the public, industry, and agencies that can be used to determine appropriate use of state water resources.

Target #1: Provide information, analysis, and response to 1,000 hydrologic customer requests.
Measure #1: Number of customers served.

Year	YTD Total
2004	2,038
2005	1,258
2006	107 1st Qtr

Analysis of results and challenges: This represents customers served by the WELTS web site, specific hydrologic requests, and industry support requests. This number may fluctuate greatly depending on the nature of development occurring in Alaska that requires hydrologic assistance.

B1: Strategy - Post hydrologic data on public well site and provide analysis of hydrologic issues.

Target #1: Post 100% of new well data received on the WELTS data base web site.
Measure #1: Percentage of well data posted on WELTS site.

Percentage of Well Data Posted

Year	YTD Total
2003	100%
2004	100%
2005	99%

Analysis of results and challenges: Of 1109 well logs received during FY 05, 1107 were added to the WELTS database, comprising an over 99% compliance with goals. The two well logs not entered into the WELTS database were military wells that were deliberately left out for reasons of national security. This target was met due to allocation of staff to complete the project as outlined.

Target #2: Respond to 100% of requests for analysis of hydrologic issues.
Measure #2: Percentage of requests responded to.

Percentage of Responses

Year	YTD Total
2003	100%
2004	100%
2005	75%

Analysis of results and challenges: Although staff hydrologists continued to address as many issues as possible, there were issues that were not addressed due to lack of staff. It is this target that was most adversely impacted by lack of adequate staff during FY 05. Issues pertaining to water quality, wetlands, and some involving extensive groundwater analyses were among the general issue types not completely addressed during FY 05.

Target #3: Provide hydrologic support to 100% of major industrial projects where requested.
Measure #3: Percentage of industrial project support requests supported.

Percentage of Requests Supported

Year	YTD Total
2003	100%
2004	100%
2005	100%

Analysis of results and challenges: Major industrial involvement during FY 05 included work in the North Slope oil fields, Red Dog Mining, Usibelli Coal, Pogo Mine, Pebble Mine and various gravel operations in the state. 100% of major industrial development issues presented were addressed during FY 05.

C: Result - All dams under DNR jurisdiction are operated safely without failure.

Target #1: No jurisdictional dams fail.
Measure #1: Number of jurisdictional dam failures.

Number of failures

Year	YTD Total
2003	0
2004	0
2005	0

Analysis of results and challenges: Zero dam failures indicate that the objectives of the Alaska Dam Safety Program were met for the year. However, only certain dams in Alaska fall under the jurisdiction of ADNR regulations. Those dams are defined in AS 46.17.900(3). Although generally rare, the consequences of a dam failure can be dramatic. Dams generally fail through lack of proper design, construction, maintenance or operation, although natural disasters can contribute to the failure of the best designed and constructed dams. All jurisdictional dams must be regularly inspected and evaluated to determine if remediation to prevent a dam failure is required. However, many of the dams under state jurisdiction were constructed before the dam safety regulations were effective. Achieving full compliance for all of the jurisdictional dams requires cooperation from dam owners who may be constrained by budgets, schedules, incentive and other factors.

C1: Strategy - Obtain compliance with regulations that were established to assure the safety of dams under state jurisdiction.

Target #1: A current periodic safety inspection on 60% of jurisdictional dams.
Measure #1: Percentage of jurisdictional dams with current inspections.

Percentage of inspections

Year	YTD Total
2003	51%
2004	49%
2005	55%

Analysis of results and challenges: In FY05, 24 dams were subjected to a periodic safety inspection, which results in 55% of the 80 dams under state jurisdiction with a current periodic safety inspection. The regulations require the dam owner to hire a qualified engineer to conduct this inspection and submit a report to the state. In addition, the regulations require the State Dam Safety Engineer to review and approve the inspection reports for these dams. Because the inspection may occur in one fiscal year, and the report may not be submitted, reviewed and approved until the following fiscal year, the measure is based on the date of the visual inspection of the dam.

All jurisdictional dams are subject to a periodic safety inspection, but not every dam is inspected each year. The inspection interval is dependent on the hazard potential classification of the dam. Class I (high) and Class II (significant) hazard potential dams are typically inspected every three years. Class III (low) hazard potential dams are to be inspected every five years. Hazard potential classification is based on an estimate of the probable consequences of the dam failure, regardless of the condition of the dam. In contrast, risk takes into account the condition of the dam and the probability of its failure, in addition to the hazard potential classification.

In any given year, a certain number of dams will be due for a new inspection while a certain number of dams will be overdue for an inspection, mostly those that are habitually out of compliance. The percent of dams in compliance is a measure of the cooperation of dam owners with the Alaska Dam Safety Program. The Dam Safety and Construction Unit promotes cooperation with the Alaska Dam Safety Program, while balancing enforcement of the dam safety regulations based on the apparent risk that a specific dam represents. Compliance in any given year is contingent on a number of factors including the dam owner's incentive, budget and schedule, as well as weather, project understanding and staff workload.

Because of our reliance on voluntary compliance, we expect that we will only receive 60% compliance, though we try to gain more compliance.

Key Component Challenges

Funding and Performance Measures. In FY06, the legislature restored $300,000 in General Funds to the Water

Rights program. These funds had been changed to Receipt Supported Services in the FY05 budget, but DNR could not raise fees to cover this switch, hence staffing and services were reduced in FY05. Although the level of funding is adequate to adjudications all new applications received in FY 2006 in a reasonable time period, this level of funding will only allow for the adjudication of 100 of the 675 backlog applications that now exist.

Additionally, funding and staff is not available for the processing of 2,500 water certificate and permit amendments pending action. This problem will have significant long-term impact consequences for Alaska's industry and citizens. Not adjudicating a water right application within a reasonable time, or processing a necessary amendment to an existing water right, may result in; delays in financing and development of projects; no legal rights or certainty during disputes over water; cost and impacts of litigation; and impacts to public trust resources.

Alaska Hydrologic Survey is only partially supported at 60% under legislatively allocated general funds. The balance remaining 40% of needed funding is raised through cooperative agreements with local governments, grants, and RSA's. As pressures for more hydrologic support increase, the commitment of time made to contractual obligations will likely reduce AHS responsiveness to issues most pertinent to DNR priorities.

Significant Changes in Results to be Delivered in FY2007

The Water Management Unit will again provide the service levels promised the legislature in 2001: a typical water right will be adjudicated within 60 days, a typical temporary water right use authorization within 20 days. The backlog of existing water right applications will be reduced by 100.

Major Component Accomplishments in 2005

Processing Water Rights. In FY05 the Water Management Unit (WMU) received 313 new water right applications and processed only 164. This resulted in an increase of 104 applications to the existing backlog of applications pending adjudication. In FY05 any new applications received and adjudicated were completed within 60 days. Processing time for new applications that were not adjudicated (104 applications in FY05) were backlogged and will not be completed within a reasonable time period. At current staffing levels backlog application adjudication may take up to 7 years.

In FY05, the 164 water right application processed included: commercial hydroelectric projects (statewide); oil and gas projects (North Slope and Cook Inlet), seafood processing facilities, for lodges, fish hatcheries, stores, golf courses, logging camps, ski areas and commercial projects; mining operations; village and community water systems; public buildings (schools, state and federal offices, hospitals and camp grounds), for instream flow, and residential homes.

Processing Temporary Water Use Authorizations. The Water Management Unit processed 100% of the Temporary Water Use Authorization applications received. To ensure that the authorizations protected the environment and could be relied upon by the applicant, staff went to unusual lengths to ensure that the record showed that staff had gone above and beyond procedures requirements for issuing the authorizations and reflected documentation that showed the environment would be protected. The lack of litigation is a significant change and increased the reliability of the authorizations for the applicants.

The Unit also asserts the state's interest and authority in water allocation issues raised by federal actions. Finally, staff maintains files on more than over 21,000 adjudicated water property rights, water use files and pending applications.

The ***Hydrologic Survey Unit*** provided Division staff with hydrologic information, data, and evaluations for 125 water permits, added close to 1,100 well logs to the WELTS database, provided nearly 150 responses to request for data analysis and interpretation of hydrologic data, and Participated in 8 industrial projects from concept and development to operation and close.

The Dam Safety and Construction Unit issued a Certificate of Approval to Operate, Construct or Abandon a Dam for 13 dams in Alaska, including proposed construction for four new dams, and the abandonment of one existing dam. Several new or revised Emergency Action Plans were received, putting the level of compliance at 33% with this requirement. The visual inspection for Periodic Safety Inspections occurred on 24 dams, putting the level of compliance at 49% for this requirement. Revised dam safety regulations were adopted, and the "Guidelines for Cooperation with the Alaska Dam Safety" program were updated to reflect the revised regulations. A draft emergency action plan for the Dam Safety and Construction Unit was also developed.

Statutory and Regulatory Authority

The Water Development Component operates under the following statutory and regulatory authority:

Statutory	Regulatory
AS 46.15.020-.970	11AAC 05.010 and 11 AAC 93.040-.970
AS 35.05.965	
As 46.17.010-.900	
AS 41.08	

Contact Information

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Water Development
Component Financial Summary

All dollars shown in thousands

	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	992.0	1,342.2	1,425.0
72000 Travel	16.2	43.7	43.7
73000 Services	53.2	194.7	115.0
74000 Commodities	32.2	35.8	26.3
75000 Capital Outlay	0.0	0.0	0.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	**1,093.6**	**1,616.4**	**1,610.0**
Funding Sources:			
1002 Federal Receipts	17.6	40.9	41.5
1004 General Fund Receipts	638.5	867.0	940.5
1005 General Fund/Program Receipts	75.2	81.1	85.8
1007 Inter-Agency Receipts	147.7	126.7	126.7
1061 Capital Improvement Project Receipts	2.4	55.0	58.3
1108 Statutory Designated Program Receipts	43.9	96.5	57.2
1156 Receipt Supported Services	168.3	349.2	300.0
Funding Totals	**1,093.6**	**1,616.4**	**1,610.0**

Estimated Revenue Collections

Description	Master Revenue Account	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Unrestricted Revenues				
Receipt Supported Services	51073	5.4	0.0	0.0
Unrestricted Total		**5.4**	**0.0**	**0.0**
Restricted Revenues				
Federal Receipts	51010	17.6	40.9	41.5
Interagency Receipts	51015	147.7	126.7	126.7
General Fund Program Receipts	51060	75.2	81.1	85.8
Statutory Designated Program Receipts	51063	43.9	96.5	57.2
Receipt Supported Services	51073	168.3	349.2	300.0
Capital Improvement Project Receipts	51200	2.4	55.0	58.3
Restricted Total		**455.1**	**749.4**	**669.5**

Estimated Revenue Collections

Description	Master Revenue Account	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Total Estimated Revenues		**460.5**	**749.4**	**669.5**

Summary of Component Budget Changes
From FY2006 Management Plan to FY2007 Governor

All dollars shown in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2006 Management Plan	**948.1**	**40.9**	**627.4**	**1,616.4**
Adjustments which will continue current level of service:				
-FY 07 Wage Increases for Bargaining Units and Non-Covered Employees	23.5	0.2	1.2	24.9
-FY 07 Health Insurance Cost Increases for Bargaining Units and Non-Covered Employees	2.7	0.0	0.1	2.8
-FY 07 Retirement Systems Cost Increase	44.0	0.3	2.3	46.6
Proposed budget decreases:				
-Reduce SDPR authorization to reflect anticipated receipt level	0.0	0.0	-40.0	-40.0
-Reduce RSS authorization to reflect anticipated receipt level	0.0	0.0	-49.2	-49.2
Proposed budget increases:				
-Risk Management Self-Insurance Funding Increase	8.0	0.1	0.4	8.5
FY2007 Governor	**1,026.3**	**41.5**	**542.2**	**1,610.0**

Water Development
Personal Services Information

Authorized Positions			Personal Services Costs	
	FY2006 Management Plan	FY2007 Governor		
Full-time	16	16	Annual Salaries	909,888
Part-time	0	0	COLA	25,122
Nonpermanent	0	0	Premium Pay	0
			Annual Benefits	512,516
			Less 1.56% Vacancy Factor	(22,526)
			Lump Sum Premium Pay	0
Totals	**16**	**16**	**Total Personal Services**	**1,425,000**

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Hydrologist I	0	0	1	0	1
Hydrologist II	2	1	0	0	3
Hydrologist III	1	0	0	0	1
Natural Resource Mgr I	1	0	1	0	2
Natural Resource Mgr II	1	0	0	0	1
Natural Resource Mgr III	1	0	0	0	1
Natural Resource Spec I	1	0	0	0	1
Natural Resource Spec II	3	1	1	0	5
Tech Eng II / Architect II	1	0	0	0	1
Totals	**11**	**2**	**3**	**0**	**16**